

Amendments to the Claims

1. (Cancelled)
2. (Currently Amended) The versatile modular water purification system according to claim 1, A versatile modular water purification system including:
 - a) a frame structure for joining and supporting, in side-by-side relation, a plurality of chamber-defining canisters serially in a path of water flow through the system,
 - b) an irradiation canister supported on the frame structure, said irradiation canister defining an irradiation chamber having an ultraviolet light (UV), ozone treatment and oxygenation location extending along its length,
 - c) at least one of a pre-filtration and post-filtration filtering canister supported on the frame structure located at [[at]] least one of an upstream and a downstream location with respect to the irradiation canister, said filtering canister defining a chamber and having a filter location therein for locating a filter in sealed, non-bypass filtering relation to the flow of water therethrough,
 - (d) wherein each of said canisters has a substantially identically molded exterior, each interfitting with the frame structure in like manner.
3. (Cancelled)
4. (Currently Amended) The versatile modular water purification system according to claim 3, A versatile modular water purification system including:
 - a) a frame structure for joining and supporting, in side-by-side relation, a plurality of chamber-defining canisters serially in a path of water flow through the system,
 - b) an irradiation canister supported on the frame structure, said irradiation canister defining an irradiation chamber having an ultraviolet light (UV), ozone treatment and oxygenation location extending along its length,
 - c) at least one of a pre-filtration and post-filtration filtering canister supported on the frame structure located at [[at]] least one of an upstream and a downstream location with respect to the irradiation canister, said filtering canister defining a chamber and having a filter location therein for locating a filter in sealed, non-bypass filtering relation to the flow of water therethrough,

(d) wherein the at least one of a pre-filtration and post-filtration filtering canister includes a pre-filtration filtering canister at an upstream location with respect to the irradiation canister, the pre-filtration filtering canister having a pre-filtration filter effective to clarify water moving to the irradiation chamber to thereby substantially eliminate UV irradiation blockage by particulates in the water to be irradiated, and

(e) wherein the at least one of a pre-filtration and post-filtration filtering canister includes a post-filtration filtering canister supported downstream of the irradiation canister on the frame structure and having a chamber housing, in sealed, non-bypass filtering relation to the flow of water therethrough, a filter finer than the pre-filtration filter.

5. (Original) The versatile modular water purification system according to claim 4, wherein the irradiation chamber is an elongate chamber housing an elongate UV lamp extending from one end of the irradiation chamber to another end of the irradiation chamber along the length of the chamber, the UV lamp being exposed along the entirety of its length within the irradiation chamber to irradiate all of the water moving through the irradiation chamber at any given time from an inlet at one end of the irradiation chamber to an outlet at another end of the irradiation chamber.

6. (Currently Amended) The versatile modular water purification system according to claim 2, A versatile modular water purification system including:

a) a frame structure for joining and supporting, in side-by-side relation, a plurality of chamber-defining canisters serially in a path of water flow through the system,

b) an irradiation canister supported on the frame structure, said irradiation canister defining an irradiation chamber having an ultraviolet light (UV), ozone treatment and oxygenation location extending along its length,

c) at least one of a pre-filtration and post-filtration filtering canister supported on the frame structure located at [[at]] least one of an upstream and a downstream location with respect to the irradiation canister, said filtering canister defining a chamber and having a filter location therein for locating a filter in sealed, non-bypass filtering relation to the flow of water therethrough,

d) wherein each of said canisters has a substantially identically molded

exterior, each interfitting with the frame structure in like manner,

(e) wherein each canister has an elongated cylindrical wall integrally molded to an end cap, the end cap defining a water input port communicating with a swirl producing channel, the port and the channel being integrally molded into the end cap.

7. (Original) The versatile modular water purification system according to claim 6, wherein the end cap has a generally centrally located bore leading into the interior of the chamber, said bore having integrally molded generally radially extending lugs for securing a UV lamp in place within the chamber.

8-13. (Cancelled)

14. (Currently Amended) ~~The water purification system according to claim 13, A water purification system having a plurality of chambers connected serially in a path of water flow through the system, including:~~

(a) an irradiation chamber having an ultraviolet light (UV), ozone treatment and oxygenation location extending along its length and free of filters, and at least one filter chamber, the UV, ozone and oxygenation treatment location comprising an elongate UV lamp extending along the length of the irradiation chamber to irradiate water moving in the chamber from a water inlet at one end of the irradiation chamber to a water outlet at a further end of the irradiation chamber,

(b) the at least one filter chamber having a water inlet at one end, a water outlet at another end and a filter location intermediate the water inlet and the water outlet in the path of water flow for locating a filter in non-bypass relation to the flow of water from the water inlet to the water outlet,

(c) wherein the at least one filter chamber is a chamber that is upstream of the irradiation chamber, a water connection from the water outlet of the at least one filter chamber to the water inlet of the irradiation chamber, and the system including at least one further filter chamber downstream of the irradiation chamber, the at least one further filter chamber having a water inlet at one end and a water outlet at the other end, a water

connection from the water outlet of the irradiation chamber to the water inlet of the at least one further filter chamber and a further filter location intermediate the water inlet and the water outlet of the at least one further chamber,

(d) wherein the upstream chamber contains a pre-filtration filter effective to clarify water moving to the irradiation chamber to thereby substantially eliminate UV irradiation blockage by particulates in the water to be irradiated, and the at least one further filter chamber contains a post-filtration filter finer than the pre-filtration filter,

(e) wherein the post-filtration filter is a carbon block filter adapted to remove over 90% of particulates larger than about one micron to filter out materials of the group consisting of dead bacteria, heavy metals, cysts, viruses, chlorine, lead, carbon, heavy metals and trihalomethanes,

(f) wherein the post-filtration filter is a carbon block filter, and ozone treatment in the irradiation chamber is effective to substantially reduce or eliminate live bacteria in the flow of water to the carbon block filter to substantially reduce or eliminate breeding of bacteria at the carbon filter.

15. (Currently Amended) ~~The water purification system according to claim 8,~~

A water purification system having a plurality of chambers connected serially in a path of water flow through the system, including:

(a) an irradiation chamber having an ultraviolet light (UV), ozone treatment and oxygenation location extending along its length and free of filters, and at least one filter chamber, the UV, ozone and oxygenation treatment location comprising an elongate UV lamp extending along the length of the irradiation chamber to irradiate water moving in the chamber from a water inlet at one end of the irradiation chamber to a water outlet at a further end of the irradiation chamber,

(b) the at least one filter chamber having a water inlet at one end, a water outlet at another end and a filter location intermediate the water inlet and the water outlet in the path of water flow for locating a filter in non-bypass relation to the flow of water from the water inlet to the water outlet,

(c) wherein both the irradiation chamber and the at least one filter chamber are formed in canisters having side walls and one end integrally molded, a closure at a further end detachably secured to the side walls, each end of the at least one filter chamber canister having a knife edge seal engaging an end of a contained cylindrical filter extending along the length of the chamber, each of the water inlet and water outlet of the at least one filter chamber opening to one of an exterior and an interior of the cylindrical filter so that water flows through the filter from the inlet to the outlet.

16-21. (Cancelled)

22. (Currently Amended) ~~The method of water purification according to claim 21, A method of water purification comprising:~~

(a) directing a flow of water through a plurality of serially connected chambers,

(b) providing a first, filtration chamber,

(c) locating a first filter in the first chamber in non-bypass relation to the flow of water therethrough, to provide filtration in the first chamber of all of the water flowing through the chamber,

(d) providing a second, irradiation chamber,

(e) directing the flow of water from the first chamber through the second chamber,

(f) irradiating the flow of water through the second chamber with ultraviolet light (UV),

(g) generating ozone in the second chamber,

(h) introducing the ozone generated in the second chamber into the flow of water through the second chamber,

(i) clarifying the water flowing through the first chamber by removing particulates in the first chamber to substantially prevent particulates interfering with UV irradiation of water flow through the second chamber,

(j) wherein the step of locating a first filter in the first chamber includes locating a generally hollow cylindrical filter, with an interior and an exterior, lengthwise in the first chamber and sealing the filter at its ends at the top and bottom of the chamber to prevent water flow between the exterior and the interior of the filter other than through the filter, and the step of directing a flow of water through the plurality of serially connected chambers includes directing the flow of water into the first chamber to one of the exterior and interior of the hollow cylindrical filter therein and directing the flow of water out of the second chamber from the other of the exterior and interior of the hollow cylindrical filter therein,

(k) wherein the step of irradiating comprises locating an elongate lamp in the second chamber extending from one end of the second chamber to the other end of the second chamber and directing ultraviolet light from the lamp to the flow of water through the chamber along the entire length of the lamp within the chamber,

(l) providing a further filtration chamber in the path of water flow downstream of the second chamber, including locating within the further filtration chamber, in the path of water flow therethrough, a finer filter than that located in the first filter,

(m) wherein locating within the further filtration chamber a finer filter includes locating a generally hollow cylindrical filter, with an interior and an exterior, lengthwise in the further chamber and sealing the filter at its ends at the top and bottom of the chamber to prevent water flow between the exterior and the interior of the filter other than through the filter, and the step of directing a flow of water through the plurality of serially connected chambers includes directing the flow of water into the first chamber [[ton]]to one of the exterior and interior of the hollow cylindrical filter therein and directing the flow of water out of the chamber from the other of the exterior and interior of the hollow cylindrical filter therein.

23-26. (Cancelled)